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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
09/775,398	01/31/2001	Christoph Plass	22727/04075	7997	
7	590 09/09/2002				
Pamela A. Docherty			EXAMINER		
CALFEE, HALTER & GRISWOLD, LLP 1400 McDonald Investment Center 800 Superior Avenue Cleveland, OH 44114			MYERS, CARLA J		
			ART UNIT	PAPER NUMBER	
			1634	a	
			DATE MAILED: 09/09/2002	(

Please find below and/or attached an Office communication concerning this application or proceeding.

		Application No.		Applicant(s)			
Office Action Summary		09/775,398		PLASS, CHRISTOPH			
		Examiner		Art Unit			
	•	Carla Myers		1634			
	The MAILING DATE of this communication ap		sheet with the c				
Period fo	or Reply						
THE - Exte after - If the - If NO - Failu - Any	ORTENED STATUTORY PERIOD FOR REPL MAILING DATE OF THIS COMMUNICATION. In sions of time may be available under the provisions of 37 CFR 1. SIX (6) MONTHS from the mailing date of this communication. It period for reply specified above is less than thirty (30) days, a replayer of the period for reply is specified above, the maximum statutory period reply within the set or extended period for reply will, by statutively received by the Office later than three months after the mailing patent term adjustment. See 37 CFR 1.704(b).	136(a). In no event, however,	ver, may a reply be tim mum of thirty (30) days IX (6) MONTHS from become ABANDONE	nely filed s will be considered timely. the mailing date of this communication. D (35 U.S.C. § 133).			
1)	Responsive to communication(s) filed on						
2a)□	•	——· his action is non-fir	nal.				
3)□	Since this application is in condition for allow	vance except for fo	rmal matters, pr	rosecution as to the merits is			
,—	closed in accordance with the practice under ion of Claims	r Ex parte Quayle,	1935 C.D. 11, 4	153 O.G. 213.			
4)🛛	Claim(s) 1-39 is/are pending in the application						
	4a) Of the above claim(s) is/are withdra	awn from considera	ation.				
5)	Claim(s) is/are allowed.						
6)[6) Claim(s) is/are rejected.						
. —	Claim(s) is/are objected to.						
8) Claim(s) <u>1-39</u> are subject to restriction and/or election requirement.							
• •	tion Papers						
9) The specification is objected to by the Examiner.							
10) The drawing(s) filed on is/are: a) □ accepted or b) □ objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).							
11\		_					
11) ☐ The proposed drawing correction filed on is: a) ☐ approved b) ☐ disapproved by the Examiner. If approved, corrected drawings are required in reply to this Office action.							
12) ☐ The oath or declaration is objected to by the Examiner.							
,	under 35 U.S.C. §§ 119 and 120						
_	Acknowledgment is made of a claim for forei	gn priority under 3	5 U.S.C. § 119(a)-(d) or (f).			
ì)						
	1. Certified copies of the priority documents have been received.						
	2. Certified copies of the priority documents have been received in Application No						
 Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. 							
14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).							
	a) The translation of the foreign language packnowledgment is made of a claim for dome	provisional applicat	ion has been re	ceived.			
Attachme							
2) No	tice of References Cited (PTO-892) tice of Draftsperson's Patent Drawing Review (PTO-948) ormation Disclosure Statement(s) (PTO-1449) Paper No(s	4) 5)) 6)		rry (PTO-413) Paper No(s) I Patent Application (PTO-152)			

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RESTRICTION

- 1. Restriction to one of the following inventions is required under 35 U.S.C. § 121:
- I. Claims 1-3, drawn to methods for identifying CpG islands, classified in Class 435, subclass 6.
- II. Claims 4-31 and 39, drawn to methods for making polynucleotides and polynucleotides, classified in Class 536, subclass 23.1 and 25.3.
- III. Claims 32-38, drawn to methods for determining whether a cancer cell is malignant, classified in Class 435, subclass 6.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case, the polynucleotides of invention II can be made by a materially different process, such that the nucleic acids can be isolated from nature or chemically synthesized.

Inventions I and III are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case, Inventions I and III are drawn to patentably distinct methods having different method steps, different objectives and involving the use of distinct reagents. Specifically, invention I is drawn to

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methods for identifying CpG islands wherein the method requires digesting DNA from malignant and non-malignant cells using a methylation-sensitive restriction enzyme, attaching a detectable label to the resulting digestion fragments, digesting the labeled fragments with a second restriction enzyme, separating the resulting fragments by electrophoresis, digesting the fragments in each gel with a third restriction enzyme, separating these restriction fragments in a direction perpendicular to the first pattern and comparing the first and second pattern to identify preferentially methylated CpG islands. Invention III is drawn to a method for determining whether a cancer cell is malignant wherein the method requires digesting DNA from cancer cells with a methylation sensitive restriction enzyme, hybridizing the restriction fragments with a CpG diagnostic probe and determining the size or sequence of the restriction fragments which hybridize to the probe. Accordingly, the methods of invention I and III are novel and unobvious over each other.

Inventions II and III are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (M.P.E.P. § 806.05(h)). In the instant case, the nucleic acids of invention I can be used in a materially different process, such as general methods for determining methylation patterns in cells or methods for identifying and characterizing genes.

Sequence Election Requirement Applicable to All Groups

In addition, inventions II and III detailed above each read on patentably distinct inventions drawn to SEQ ID NO: 1-93. The sequences are patentably distinct because they are unrelated sequences, and a further restriction is applied to each invention. For an elected invention drawn to a nucleic acid, Applicants must further elect a single nucleic acid sequence. It is noted that nucleotide sequences encoding different proteins are structurally distinct chemical compounds and are unrelated to one another. These sequences are thus deemed to constitute independent and distinct inventions within the meaning of 35 U.S.C. 121. Absent evidence to the contrary, each such nucleotide sequence is presumed to represent an independent and distinct invention, subject to a restriction requirement pursuant to 35 U.S.C. 121 and 37 CFR 1.14. Applicant is advised that the examination will be limited to only the single elected SEQ ID NO and that this Sequence Election should not be construed as a species election.

- 3. Because these inventions are distinct for the reasons given above and have acquired a different status in the art as demonstrated by their different classification and recognized divergent subject matter and because the inventions require different keyword and sequence searches that are not co-extensive, examination of these distinct inventions would pose a serious burden on the examiner and therefore restriction for examination purposes as indicated is proper.
- 4. Applicant is advised that the response to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 C.F.R. § 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a diligently-filed petition under 37 C.F.R. § 1.48(b) and by the fee required under 37 C.F.R. § 1.17(h).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carla Myers whose telephone number is (703) 308-2199. The examiner can normally be reached on Monday-Thursday from 6:30 AM-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, W. Gary Jones, can be reached on (703)-308-1152. The fax number for the Technology Center is (703)-305-3014 or (703)-305-4242.

Any inquiry of a general nature or relating to the status of this application should be directed to the receptionist whose telephone number is (703) 308-0196.

Carla Myers

September 5, 2002

CARLA J. MYERS
PRIMARY EXAMINER